

III. Rejections Under §112

A. First Paragraph

Claims 5 and 9-11 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter not described in the specification. In particular, the Office Action cites the language of the claims that recite "a cylindrical body constituting a trunk portion of a tube container." Claims 10-11 are canceled. Applicants respectfully traverse this rejection.

Claim 5, containing the rejected limitation, recites "a laminated plastic molded body according to Claim 1, wherein said plastic molded body is a cylindrical body constituting a trunk portion of a tube container." Claim 9 is similar to claim 5, but depends from claim 2. Applicants respectfully submit that this claim language is clearly and unambiguously described in the specification, and would be readily understood by one of ordinary skill in the art.

In particular, the claim language refers specifically to the portion of the container construction that may alternatively be referred to as the main body portion of the container. For example, the specification describes at page 12, last paragraph, that the trunk portion is the portion of the container body located between the bottleneck portion and the grounded (or base) portion. In Fig. 1, the trunk portion would thus correspond to the constant-diameter cylindrical portion (a part of which is shown in exploded view) located between the tapering cylindrical and screw-cap bottle neck portion and the reinforcing-shaped grounded (or base) portion. Claim 5 thus is directed, for example, to an embodiment as generally depicted in Fig. 1, and specify that the plastic molded body is the a cylindrical body and is used as the trunk portion of the container.

Accordingly, claim 5 satisfies the requirements of 35 U.S.C. §112, first paragraph. Reconsideration and withdrawal of the rejection are respectfully requested.

B. Second Paragraph

Claims 3-4 and 10-11 are rejected under 35 U.S.C. §112, second paragraph, as failing to particularly point out and distinctly claim the subject matter of the invention. In particular, the Office Action argues that it is unclear how the laminated plastic molded body can be both the container (claims 3 and 4) and only a portion of the container (claims 10 and 11).

By this Amendment, claims 10 and 11 are canceled, rendering the rejection moot. The claims thus particularly point out and distinctly claim the invention, in that claims 3 and 4 are directed to embodiments where the laminated plastic molded body is the container, and claim 5 is directed to embodiments where the laminated plastic molded body is only a portion of the container. Claims 3, 4 and 5 are properly dependent, and distinctly claim the invention.

Accordingly, claims 3 and 4 satisfy the requirements of 35 U.S.C. §112, second paragraph. Reconsideration and withdrawal of the rejection are respectfully requested.

IV. Rejection Under §102

Claims 1, 3-4 and 8 are rejected under 35 U.S.C. §102(b) over JP 07-266517 (hereafter, "JP 517"). Applicants respectfully traverse this rejection.

Independent claim 1 is directed to a laminated plastic molded body being a three-layered or five-layered laminated plastic molded body in which a resin layer A and a resin layer B are laminated alternately, and the resin layer A is a poly(ethylene terephthalate) resin layer, and the resin layer B interposed between said resin layers A is a polyolefin resin layer having a cyclic olefin component. Such a laminated plastic molded body is nowhere disclosed in JP 517.

As specifically recited in claim 1, the laminated plastic molded body of the claimed invention is formed as a laminate of two different resins, denoted resin A and resin B, where resin A is a poly(ethylene terephthalate) (PET) resin layer, and resin B is a polyolefin resin

layer having a cyclic olefin component. Claim 1 further recites that the laminate is formed as either a 3- or 5- layer structure, where resins A and B are laminated alternately, and where resin layer B is interposed between the resin layers A. Thus, the laminated structure defined by claim 1 can be represented as A-B-A for a three-layer structure, or as A-B-A-B-A for a five-layer structure. See, for example, the enlarged portion of Fig. 1 of the present specification.

The Office Action correctly points out that JP 517 discloses a laminate comprising different resin materials, where one resin material can be polyolefin and the other resin can be PET. However, the laminate structure disclosed in JP 517 is different from the laminate structure of the claimed invention. In particular, in the structure of JP 517, the disclosure of using PET as a resin material is only with respect to the base material layer. When PET is used, it is used as a base material, with the innermost layer being polyethylene resin. See, for example, Example 16.

Thus, at most, JP 517 teaches a resin structure that may be compared to the claimed invention as B-A-B, not the claimed A-B-A. JP 517 does not disclose that the PET resin is used as the outermost and innermost layers, where an internal layer of the laminate is formed of a different resin that is a polyolefin resin layer having a cyclic olefin component.

Accordingly, JP 517 does not anticipate the claimed invention. Reconsideration and withdrawal of the rejection are respectfully requested.

V. Rejections Under §103

A. Claims 1-11

Claims 1-11 are rejected under 35 U.S.C. §103(a) over JP 960 in view of JP 919, Taniguchi and Hahn. Applicants respectfully traverse this rejection.

Independent claim 1 is directed to a laminated plastic molded body being a three-layered or five-layered laminated plastic molded body in which a resin layer A and a resin

layer B are laminated alternately, and the resin layer A is a poly(ethylene terephthalate) resin layer, and the resin layer B interposed between said resin layers A is a polyolefin resin layer having a cyclic olefin component. Such a laminated plastic molded body is nowhere taught or suggested by the cited references, alone or in combination.

As specifically recited in claim 1, the laminated plastic molded body of the claimed invention is formed as a laminate of two different resins, denoted resin A and resin B, where resin A is a poly(ethylene terephthalate) (PET) resin layer, and resin B is a polyolefin resin layer having a cyclic olefin component. Claim 1 further recites that the laminate is formed as either a 3- or 5- layer structure, where resins A and B are laminated alternately, and where resin layer B is interposed between the resin layers A. Thus, the laminated structure defined by claim 1 can be represented as A-B-A for a three-layer structure, or as A-B-A-B-A for a five-layer structure. See, for example, the enlarged portion of Fig. 1 of the present specification.

JP 960 is cited for its disclosure of a laminate structure for a container, where the laminate structure contains an internal layer of polyolefin and external layers of PET, ethylene vinyl alcohol, or MX nylon. JP 919 is cited for its disclosure of a polyolefin resin having a cyclic olefin component. Taniguchi is cited for its disclosure of a specific PET composition, and Hahn is cited for its disclosure of biaxially drawn containers. Despite these disclosures, the cited references would not have rendered obvious the claimed invention to one of ordinary skill in the art.

The requirements for a prima facie case of obviousness are specified and described in MPEP §2143. According to MPEP §2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference. Second, there must be a reasonable expectation of success. Third, the prior art reference must teach or suggest all the claim limitations. The references applied in the Office

Action fail to establish a prima facie case of obviousness, at least because they fail to teach or suggest all the claim limitations.

At most, JP 960 teaches a multi-layer laminate that can include an internal layer of polyolefin and external layers of PET, ethylene vinyl alcohol, or MX nylon. However, the reference does not specifically teach or suggest that the final laminate structure should be the form PET-PO-PET or PET-PO-PET-PO-PET, as claimed. Rather, the reference specifically allows for a wide range of combinations of resin materials, such that ethylene vinyl alcohol and/or MX nylon could be used exclusively, or could be used as one layer while PET is used as another layer. Nowhere does the reference teach or suggest specifically selecting only PET and a particular PO, and forming a laminate as claimed.

Furthermore, JP 960 does not specifically teach or suggest that the PO should be a polyolefin resin layer having a cyclic olefin component, as claimed. To overcome this deficiency, the Office Action cites JP 919. However, neither JP 960 nor JP 919 provide the necessary motivation for one of ordinary skill in the art to have combined the cited references. Neither reference teaches or suggests that the use of a polyolefin resin having a cyclic olefin component, such as disclosed in JP 919, would have any benefit in the laminate structure of JP 960.

It is axiomatic in patent law that two references can not be combined to render obvious the claimed invention where there is no motivation in the references or elsewhere to make the asserted combination. For example, the Federal Circuit held in In re Oetiker that "[t]here must be some reason, suggestion or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination." 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). See also In re Geiger, 815 F.2d 686, 2 USPQ2d 1276 (Fed. Cir. 1987) ("Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the

combination."). No motivation has been shown for combining the cited references, with any expectation of success. Thus, it would not have been obvious to use JP 919's simple disclosure of a polyolefin resin having a cyclic olefin component in the laminate structure of JP 960.

Furthermore, JP 919 is directed to a single-layer structure, not a laminate of two different materials, as claimed. Nowhere does either JP 960 or JP 919 teach or suggest that the single-layer material of JP 919 could or should be substituted as one of the multi-layer materials of JP 960, to practice the claimed invention. In fact, because JP 919 teaches that the single layer structure is suitable, the references teach away from the asserted combination in favor of the simpler structure of JP 919 alone.

The Office Action cites Taniguchi, for disclosing a resin material that includes a specified amount of polyethylene terephthalate-type polyester, poly(butylene terephthalate)-type polyester, and a metal salt of a copolymer. It is not clear if these teachings were cited in view of the limitations of claim 2, or for some other reason. Nevertheless, these teachings are irrelevant to claim 1, and are irrelevant to the ratio limitations of claim 2.

Claim 2 requires that the total weight of the poly(ethylene terephthalate) resin constituting the resin layer A is 95 to 55% by weight and the total weight of the polyolefin resin layer having the cyclic olefin component constituting the resin layer B is 5 to 45% by weight. Such a ratio between the PET resin and the PO resin is not taught or suggested by any of the cited references, and would not have been obvious to one of ordinary skill in the art.

Hahn is cited for its disclosure of biaxially drawn blow molded materials. However, regardless of this disclosure, Hahn fails to overcome any of the above-described deficiencies of the other cited references. Even in view of Hahn, the remaining references fail to have rendered obvious the claimed invention, for all of the reasons discussed above.

Accordingly, the references fail to teach or suggest all of the limitations of the claimed invention. The claimed invention would not have been obvious to one of ordinary

skill in the art over the cited references. Reconsideration and withdrawal of the rejection are respectfully requested.

B. Claims 2, 5-7 and 9-11

Claims 2, 5-7 and 9-11 are rejected under 35 U.S.C. §103(a) over JP 517 in view of Taniguchi and Hahn. Applicants respectfully traverse this rejection.

As described above, independent claim 1 is directed to a laminated plastic molded body being a three-layered or five-layered laminated plastic molded body in which a resin layer A and a resin layer B are laminated alternately, and the resin layer A is a poly(ethylene terephthalate) resin layer, and the resin layer B interposed between said resin layers A is a polyolefin resin layer having a cyclic olefin component. Such a laminated plastic molded body would not have been obvious over the cited references.

The Office Action correctly points out that JP 517 discloses a laminate comprising different resin materials, where one resin material can be polyolefin and the other resin can be PET. However, the laminate structure disclosed in JP 517 is different from the laminate structure of the claimed invention. In particular, in the structure of JP 517, the disclosure of using PET as a resin material is only with respect to the base material layer. When PET is used, it is used as a base material, with the innermost layer being polyethylene resin. See, for example, Example 16.

Thus, at most, JP 517 teaches a resin structure that may be compared to the claimed invention as B-A-B, not the claimed A-B-A. JP 517 does not disclose that the PET resin is used as the outermost and innermost layers, where an internal layer of the laminate is formed of a different resin that is a polyolefin resin layer having a cyclic olefin component.

Furthermore, JP 517 nowhere teaches or suggests modifying the disclosed structure to instead use PET as the outermost layers. JP 517 discloses that PET is used as the base material to provide specific advantages to the laminate, and does not teach or suggest that the

same advantages would instead be provided if PET were used as the outermost layers, and polyolefin was used as the inner layer or base material.

Taniguchi and Hahn are cited for the same reasons as described above. However, similar to the rejection discussed above, Taniguchi and Hahn fail to overcome the deficiencies of JP 517. Neither Taniguchi nor Hahn teach or suggest that the laminate structure of JP 517 could or should be modified to use the resin materials A and B in the order required in the present claims.

Furthermore, JP 517 likewise fails to provide any teaching or suggestion that the resin layers should be used in the instantly claimed weight ratio. Likewise, as described above, none of Taniguchi and Hahn overcome this deficiency of JP 517.


Accordingly, the references fail to teach or suggest all of the limitations of the claimed invention. The claimed invention would not have been obvious to one of ordinary skill in the art over the cited references. Reconsideration and withdrawal of the rejection are respectfully requested.

VI. Conclusion

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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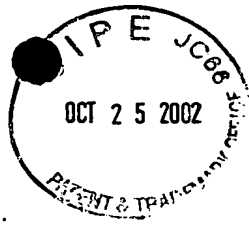
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APPENDIX

Changes to Specification:

Page 1, lines 8-16:

Various kinds of plastic containers have been on the market as a container for example, foods, drinks, cosmetics, chemicals or the like, since they have a light weight, ~~less~~ lower danger of breakage, a low cost and the like. For example, plastic containers made of polyolefin resins such as polypropylene, etc. have been used as ~~a-containers~~ containers for general purpose having barrier properties against humidity. Also, plastic containers made of poly(ethylene terephthalate) resins have excellent transparency and oxygen barrier properties, and have been used as ~~a-containers~~ containers for various kinds of beverages having beautiful appearance similar to glass bottles.

Page 3, lines 22-25:

The laminated plastic molded body of the present invention according to the above constitution is preferably a plastic container comprising a hollow ~~biaxial drawing~~ biaxially drawn blow molded body, or a plastic container comprising a hollow blow molded body.

Page 7, line 24 to page 8, line 2:

For example, when a laminated plastic molded body being a hollow container is to be made, a parison previously molded by a direct blow molding, or an injection molding or coextrusion molding, etc. is subjected to a secondary molding such as a blow molding or a ~~biaxial drawing~~ biaxially drawn blow molding, etc., thereby molding can be carried out. It is preferred to make a hollow container comprising a laminated plastic molded body by a ~~biaxial drawing~~ biaxially drawn blow molding since more preferred mechanical properties could be obtained.

Page 9, lines 6-11:

Then, the above-mentioned parison having the bottom was subjected to ~~biaxial-drawing~~ biaxially drawn blow molding in a mold for blow molding to obtain a container comprising a multi-layer laminated plastic molded body and having a volume of 500 ml, a height of 20 cm, and a diameter at the center portion in the lengthwise direction at the center of the body portion for adhering a label of 6.7 cm with an outline shape shown in Fig. 1.

Page 9, lines 13-17:

A parison having a bottom and made of a poly(ethylene terephthalate) resin (available from Nippon Unipet Co., Ltd.: RT-543SR) with a weight of 32 g was molded by an injection molding, and then, said parison was subjected to ~~biaxial-drawing~~ biaxially drawn blow molding in the same manner as in Example 1 to obtain a plastic container having a volume of 500 ml for comparison.

Page 10, lines 18-21:

Then, the above-mentioned parison having a bottom was subjected to ~~biaxial-drawing~~ biaxially drawn blow molding in a mold for blow molding to obtain a container comprising a multi-layer laminated plastic molded body corresponding to No. 5 standard bottle having a volume of 50 ml.

Page 11, lines 10-13:

Then, the above-mentioned parison having the bottom was subjected to ~~biaxial-drawing~~ biaxially drawn blow molding in a mold for blow molding to obtain a container comprising a multi-layer laminated plastic molded body corresponding to No. 5 standard bottle having a volume of 50 ml.

Page 11, lines 15-20:

A parison having a bottom and made of a poly(ethylene terephthalate) resin (available from Nippon Unipet Co., Ltd.: RT-543SR) with a weight of 13.8 g was molded by an injection molding, and then, said parison was subjected to ~~biaxial-drawing~~ biaxially drawn

blow molding in the same manner as in Example 2 to obtain a plastic container corresponding to No. 5 standard bottle having a volume of 50 ml.

Page 12, lines 9-16:

A parison having a bottom and made of a polyolefin type resin (available from Mitsui Kagaku Co., Ltd.: APEL) which comprises a copolymer of a cyclic olefin component which is tetracyclo[4.4.0.1^{2,5}.1^{7,10}]-3-dodecene or a derivative thereof and an α -olefin with a weight of 8.9 g was molded by an injection molding, and then, said parison was subjected to ~~biaxial drawing~~ biaxially drawn blow molding in the same manner as in Example 2 to obtain a plastic container for comparison corresponding to No. 5 standard bottle having a volume of 50 ml.

Changes to Claims:

The following are marked-up versions of the amended claims:

3. (Amended) A laminated plastic molded body according to Claim 1, wherein said laminated plastic molded body is a plastic container comprising a hollow ~~biaxial drawing~~ biaxially drawn blow molded body.

6. (Amended) A laminated plastic molded body according to Claim 2, wherein said laminated plastic molded body is a plastic container comprising a hollow ~~biaxial drawing~~ biaxially drawn blow molded body.